Historic, archived document

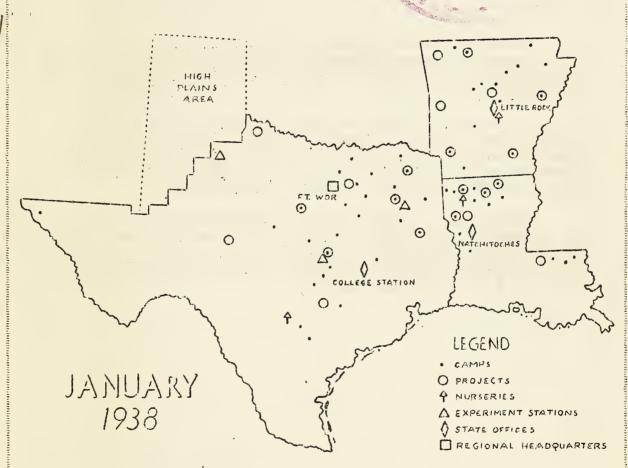
Do not assume content reflects current scientific knowledge, policies, or practices.



o. E. at. of Agriculture,

SOIL CONSERVATION SERVICE





REGION 4
COMPRISING STATES OF LOUISIANA,
ARKANSAS, AND TEXAS EXCEPT
HIGH PLAINS AREA

January 15, 1938

During nineteen-thirty-seven 2100 farmers became cooperators with the Soil Conservation Service in Region 4. To date the number of cooperators in the region is 9100 and the farms represented total in area 1,464,000 acres.

By December 15, 1937, thirty eight hearings had been held on twenty-three proposed districts, covering 5,101,000 acres, five districts totalling 1,289,000 acres had been organized, and four districts with a combined area of 1,245,000 acres were approved by the State Soil Conservation Committee for referenda.

This issue of SOIL CONSERVATION SERVICE NEWS is devoted to the progress made in Region 4 during 1937 and to brief statements of some of the cutstanding accomplishments during the year in the work of erosion control and moisture conservation being carried on by the Soil Conservation Service.

SECTION OF CONSERVATION SURVEYS

1. Completion of Conservation Surveys on all projects, including new projects at Bentenville, Arkanses and Vernon, Texas.

Total acreage surveyed to date on projects - 936,839 acres
Total acreage surveyed to date on camps - 1,182,695 acres
Extension Service - 13,316 acros
Prought relief - 8,849 acres
Total - 2,141,699 acres

- 2. Final inspection of conservation survey for corrolation and possible publication of report on projects located at Harrison, Conway, Forrest City, Bontonville, Farmerville, Coushatta, Mansfield, Dublin, Vernon, Mt. Pleasant, Templo, Garland, and Lindale. Also preliminary inspection of surveys on Monticelle, Ruston, and Enn Angelo projects.
- 3. Report of Conservation Survey of Temple project in process of publication. Report includes set of maps of entire project area to a sealo of $4^n = 1$ mile, together with history of area, discussion of practices followed and those recommended and complete analyses of data on soil types, slope, crossen, and land use.
- 4. Completion of Survey of Watershed of Lake Crook Reservoir, Paris, Texas comprising an area of approximately 50 square miles. Report and maps in process of publication.
- 5. Completion of Survey of Watershod of Whiterock Lake, Dallas, Texas comprising an area of approximately 100 square miles. Report and maps to be published before end of fiscal year.
- 6. Completion of Survey of approximately one-half of the 1,680 square miles included in the Watershed of Lake Waco Reservoir. Completion contemplated before end of fiscal year.
- 7. Completion of approximately 800 square miles within the Lake Taneycomo Watershed in Arkansas.
- 8. Planimeter measurements of conservation survey data tabulated by soil type, slope, land use, and erosion for all camps and for projects where final inspection has been made and suggested revisions completed.
- 9. Detailed reconnaissance surveys to determine general erosion, slope, soil and land use conditions on 29 watersheds of various streams in Arkansas totaling an area of 1,500,000 acres; 3 watersheds in Louisiana with an area of 395,000 acres; and 3 areas in Texas including 1,660,000 acres; a grand total of 3,550,000 acres covered by the reconnaissance survey in Region 4.

SECTION OF EROSION CONTROL PRACTICES

Decided advancements throughout the region in the technique of planning farms, more thorough work execution, decreased costs of doing soil conservation work, and the zoning of farms for contact purposes were a few of the high lights of 1937 work of the soil conservationists.

The planning groups are to be highly commended on their extended efforts to improve both the quality and quantity of their farm planning. The general results of complete coordinated plans of crosion control well planned and fully executed are very noticeable throughout the region, said Mr. Dykes, Head of Erosion Control Practices Section in Region 4, in reviewing the work done in 1937.

Some of the major points outlined in his review were:

- 1. Improvement of methods of performing soil conservation work which not only increased the effectiveness but decreased the cost of application.
- 2. Improvement in the technique of planning.
 - a. Farm management work sheets.
 Simple work sheets showing the present enterprise status of the farm and its weak points from each and livestock (feed and pasture needed for present livestock) standpoints have been used by the planning groups.
 This basic information is used as an aid in the development of a complete coordinated program of soil and water conservation that is economically sound for the particular needs of each individual farm.
 - b. Farm roads.

 Improper location and maintenance of roads on many farms are causing scrious erosion hazards not only to the road but to adjoining land. Special emphasis has been given by planning groups in the location and protection of farm roads.
- 3. Economic surveys.
 - a. Complete economic farm surveys were made on a representative number of farms by the staffs on the Vernon and Bentenville projects. The data gathered from these surveys were used in the preparation of the work program for each project area.
 - b. Economic surveys which have been made on the Lindale project for the last four years were continued by the project staff. Plans have been completed to assemble and distribute this five-year information to the field personnel for their use in farm planning.
- 4. Farm cost records.

A system of keeping individual farm cost records was adopted in the region in order that estimated and actual costs of treating a farm may be compared and to secure accurate per acro costs of treating cultivated, pasture and woodlands in the various major soils and type of farming areas (erosion problem ares).

AGRONOMY SECTION

The year 1937 was marked by a more general appreciation of the value of vegetation for crossion control and a fuller appreciation of the place vegetation must have in the development of a permanent system of agriculture, including permanent pastures, cover crops and crops for green manuring.

One hundred and eleven thousand acres of land on farms cooperating with the Soil Conservation Service in this region have been retired from cultivation to be used for permanent pasture, which together with 252,365 acres of permanent pasture already on these farms has presented a problem in establishing and improving pastures.

Region IV has two very distinct types of pasture problems represented by the Bernuda (and Carpet grass) Region in Arkansas, Louisiana, and East Texas, and by the range grass area in the Blackland Prairie Region of Texas and westward. Of the more efficient and effective methods of establishing Bernuda grass sod that have been practiced this past year; Bernuda roots dropped in rows where corn is to be planted has given the best ground cover as a result of the cultivation given to the crop; Bernuda sod scattered ever land that has been flat broken and then harrowed to cover the roots has also been very satisfactory; Mulch sodding for establishing Bernuda along gully banks is also very satisfactory. The land must be well prepared by plowing to get a satisfactory spread of Bernuda grass.

Cooperators are now more generally realizing the value of mowing pastures from the improvement resulting from this practice and are carrying out this part of the pasture program on practically all farms under agreement. Many cooperators are broaking out land that was planted with Bermuda grass in streak furrows on unplowed land, which is very effective in stimulating the spread of sod. Satisfactory results have been obtained by seeding Bermuda grass where plantings have been made on good soil. "Hulled" seed are now available on the market and should be used. Plantings should be made only on soil where there will be little competition from weeds and other grass. Seedings are most successful on undisturbed areas where brush piles have been burned.

Pasture contour furrowing for water conservation has been modified somewhat to allow the construction of closely spaced furrows instead of large ridges which interfered with nowing. This practice has had almost unanimous approval of the cooperators.

An effort has been made to get a pasture management plan included in all new agreements. This part of the program has made considerable progress and offers an excellent opportunity to develop sound land use planning in connection with the needs of the cooperator. Supplementary feed in the form of temperary pasture and silage is necessary for the most efficient management of permanent pastures. Cropping plans are now including Sudan grass and small grains for temperary pastures where adapted and many cooperators have constructed trench siles this past year.

Those crops have shown promise: Rhodes grass for pasture and meadow strips in the southern part of the Blackland, Little bluestem for permament strips and meadows in the Blackland Prairie Region, Hubam clover for strip crops in the Blackland Region, Rescue grass for winter pasture in the Blackland Region and westward, Cheat (Chess) for winter cover along highway shoulders and gully banks in the north half of Arkansas, Giant Scuthern Bur clover for a winter cover crop in the Coastal Plains Ingion.

Eleven two-day schools were held at projects throughout Texas, arkansas, and Louisiana from May 14 to June 9, inclusive, with a total attendance of 171. The purpose of the schools was to familiarize the men on projects and camps with vegetation of their local areas and discuss local and general problems relating to grasses, legumes, woods and particularly the fundamentals of the problems. A follow-up grass school was held at the San Antonio Mursery from Sept. 8 to 1/4, inclusive. Fifteen agronomists from Arkansas, Louisiana and Texas wer selected to attend. This school dealt primarily with the identification and adaptations of important grasses used in crosion control work. A discussion was also held on seed collection, threshing, cleaning and distribution. A brief discussion and demonstration was held on methods of making botanical analyses. Results of the schools are being applied in the field and it is felt the men are better prepared to give wider and more careful attention to the use of grasses in the crosion control and water conservation program throughout the region.

Acreage in hay crops has been increased from 17,821 acres on cooperating farms before agreement to over 40,000 acres, which gives a better balanced farm program incidental to the value of these crops for crosion control. Acreage in winter cover crops has been increased to three times the acreage planted en cooperating farms before they were placed under cooperative agreement. This acreage consists mainly of vetch, Austrian winter peas, oats, and Southern Bur clover. The greater part of these crops will be turned under for green manuring. The selection of a crop that will reseed or for which seed can be produced on the farm is important in a cover crop program. Giant Southern Bur clover for the Coastal Plains region, Huban clover in the Blacklands of Toxas, and Lespedeza for the Loessial soils of Eastern Arkansas, offer much promise.

Significant developments in the strip cropping program are the importance of establishing permanent strips across long slopes and on certain soil types, and the attention that must be given to the proper planting dates and the selection of a crop that will fit the cropping system on the farm.

By careful attention to the selection of sites and the use of adapted crops the meadow strip has been utilized as a definite unit in the cropping plan both for terrace outlets and for permanent crossion control strips on critical and long slopes.

ENGINEERING SECTION

TERRACING:

The personnel of the Engineering Section devoted a relatively large portion of their time to the study of terrace construction methods in use in the region in an effort to obtain a satisfactory terrace at reduced cost. The first step in this work was to define the slopes on which it is more economical to construct the terrace by moving the soil from both sides of the terrace line into the ridge, and those slopes on which it is more economical to move the soil from only the upper side of the terrace line into the ridge. It was decided that the former method would be used on slopes of 3% or less, and the latter method on slopes greater than 3%.

Progress in the above methods of terrace construction has been limited to the Rolling Sandy Lands of Louisiana, Arkansas, and East Texas. No change is contemplated in the type of terrace used in the Rolling Plains area where water conservation is of primary importance. During the coming year it is hoped that there will be an opportunity to extend the studies to the Blackland area.

Reports of the camps and projects in Region 4 show that 4100 miles of terraces were constructed during the year. These terraces offer protection to approximately 58,000 acres.

TERRACE OUTLETS:

Approximately 50,000 acres of terraced land were protected by vegetation the past year. This consisted of designed outlet channels and natural or prepared meadow outlet strips. The trend in outlet channel design was toward a channel with flatter side slopes that simplified construction and maintenance.

GULLY CONTROL:

Gully control during the past year shows a decided increase in the use of the more practical methods. This consisted of sloping the gully banks with teams and plows and seeding and sodding the sloped area. Diversion ditches and contour ridges were used where necessary to reduce the amount of water entering the gully. To date 28,000 acres of land have benefited by gully control work.

HIGHWAY EROSION CONTROL

Erosion control demonstrations, carried on by the Soil Conservation Service in cooperation with state and county officials and the Bureau of Public Roads during the past year, covered two main phases of the work. Demonstrations were established in the various soil regions in Arkansas and Texas to determine the best methods of crosion control. In all cases the road bed and adjoining banks were re-sectioned to produce a more gentle slope, and experiments were made with various methods of sodding to determine which are the most effective and economical. Demonstrations of this type were initiated at Forrest City and Russellville, Arkansas, and at Sherman and Madisonville, Texas. Others are planned for Bogata, Jacksonville, and Nacogdoches, Texas.

The second phase was that of protection work along highways adjoining cooperating farms. The best known methods of sedding, as determined by the erosion control demonstrations, were used in the protective demonstrations. While the main purpose of this work was to protect the farm lands adjoining the highways and provide outlets for terrace water from the farms, it also added to the sale value of the farms and to the beauty and safety of the highways. Almost every project and camp in Texas has devised and executed some protective highway work. Plans were made in November, 1937 for demonstrational work to begin in the state of Louisiana, at Minden, with emphasis placed on the protective phase.

Erosion control work now under way is an outgrowth of studios that wore begun on the old Lindale, Texas, project in 1934, when vogetation was first considered as a substitute for concrete structures. Already many miles of highway have been constructed by state officials in duplication of the methods which joint demonstrations in crosion control have, up to the present time, proven satisfactory.

EVALUATION SURVEYS AND RESEARCH ACTIVITIES

Evaluation surveys are being carried out on the following projects: San Angelo, Dublin, and Garland in Texas; Minden in Louisiana; and Harrison, Monticello, Forrest City, and Conway in Arkansas. The working plans for the evaluation studies in Texas and Louisiana have been approved locally and in Washington. The plans for the Arkansas surveys have been approved by Dr. Geib and are ready for review by the State Steering Committees prior to submission to Washington.

Proposed plans for the Spur, Texas, Experiment Station and plans for research studies to be conducted at Baton Rouge have been reviewed by technical sections of the regional office and suggestions for additions or changes made.

A list of major problems on which research is needed in this region has been prepared and submitted to Dr. McCall in Washington for use in the meetings to be held early this year for working out a long-time research program.

WOODLAND MANAGEMENT SECTION

Six million, one hundred fifty-one thousand, seven hundred trees were planted on 4,416 acres of eroded fields and pastures converted to permanent woodlands, and more than 80% of the trees were alive and growing at the end of the season. This survival is the highest ever obtained, due primarily to better preparation of the soil for planting and better cultivation by cooperators during the spring reachs.

Considerable progress was made in providing the necessary protection for farm woodlands against grazing animals. In most Soil Conservation Service areas the difficult woodland pasture problem has been solved satisfactorily on these farms planned during 1937, and several projects have made a concerted effort to revise old agreements in order to provide the necessary grazing protection for farm woodlands.

Much attention was given the matter of sustained yields for farm woodlands, and it is believed a method has been devised which, at the very least, represents a satisfactory working basis. Most project foresters, thoroughly analyzing woodland problems in their areas, have determined rates of growth for the several local ferest species, the amount of wood consumed on the farm, and the possibilities of marketing wood products. Such factors, a knowledge of which is essential to sound woodland management planning, had never before been studied systematically by our project foresters.

A great deal of the progress of the woodland section was made possible by a better understanding of its program on the part of staff members not directly connected with woodland planning. This changing attitude was evidenced, also, by the fact that 17 additional feresters were requested during the year.

WILDLIFE MANAGEMENT SECTION

Practically all of the 2100 cooperative agreements that were taken in the region during 1937 include some crosion control practice for the improvement of wildlife conditions on the farm. Woody plants which are favorable to wildlife are being widely used throughout the region with approximately one million planted during the early part of the year and another million obligated for the planting season of 1937-38.

In addition to these plantings, many acros have been set aside and are to be pretected from fire and grazing and maintained as wildlife areas. Fence rows, fence corners, and small uncultivated and badly eroded areas are being planted or allowed to grow up in vegetation which will support wildlife populations.

Along with the efforts that have been made to improve wildlife habitats, several game protective associations have been formed. In practically every project and camp area some effort has been made toward controlled hunting on cooperating farms.

NURSERY SECTION

SIBLEY, LOUISIANA

During the first three months of the year six established tree and shrub producing units, scattered from Sheveport and Kentwood, Louisiana to Nacogdoches, Texas were consolidated into one unit near Sibley, Louisiana. This resulted in a marked reduction of expenditures and a distinct increase in efficiency, and made possible, for the first time at the tree nursery, the initiation of an observational study program for the purpose of discovering better plants and grasses for crosion control work. It also afforded an opportunity for a particular study of grasses native to the Louisiana-Texas piney woods region, designed to isolate those strains of valuable hay and forage plants best suited to crosion control. The work consisted primarily of making field selections and transplanting them to the nursery for close observation and seed increase. Definite results must await further work.

On the dark side of the picture we have (1) heavy losses of pine planting stock, caused by failure to receive adequate irrigation equipment in time to combat a severe drought; and (2) total loss of the black locust and mulberry seedling crop through a nematode attack that made distribution of this stock for field use unsafe.

SAN ANTONIO, TEXAS

Here a seed laboratory was set up early in the year, under a competent seed analyst. The work includes germination and purity tests on seed purchased by the various projects and camps; similar tests on seed grown and collected by the nurseries; studies of seed of important native grasses to determine average purity and germination percents, and of methods of storage and treatment to insure germination; determination of number of seeds per pound (Rhodes grass, for example, was found to run 1,466,000); improvement in methods of testing grass seed and tree seed; and instruction of project and camp agreenomists in seed identification.

Improved planting notheds were developed for several important grasses, particularly little bluestem and buffalo grass. New seed harvesting machinery was purchased or furthered locally, and collecting and cleaning methods were so improved that seed costs were materially reduced. The nursery took advantage of an exceptional crop of buffalo grass seed near Gatesville, Texas, and, aided by the Gatesville CCC enrollees, collected some 5,000 pounds of clean buffalo grass seed at a cost much lower than such seed had ever before been obtained.

The severe drought in the nursery area provided an excellent opportunity for selecting drought-resistant strains of several important grass species. Chief of these, perhaps, were two strains of little bluestem, the seed of which were planted and grown very successfully under field

conditions, with practically no rainfall, when other selections of the same species were complete or partial failures. Ability to germinate and grow under drought conditions is a very important requirement of any grass used for crossion control.

Rhodes grass was tested for seed and ground-cover production under field conditions with complete success, until the severe freeze of Nov-onber 20. However, indications are that freeze-killed plants are promptly replaced by a new stand of seedlings if freezing weather does not continue too long, or come at frequent intervals.

Similar studies on many other grasses were made, and some very promising strains selected for further development. It is the hope of the nursery section to find the best possible strains of both native and foreign grasses, develop suitable methods of planting, cultivating and harvesting them, and furnish this information to interested farmers and ranchers to the end that they may produce, market and use these crops for profit and successful erosion central.

Projects and camp observational grass plantings were made on four projects in Arkansas, five projects and two camps in Texas. Two complete records, made in the late spring and in the fall before frost, indicate that little bluesten will germinate where moisture permits, regardless of air temperatures. Because little bluesten seedlings form secondary roots slowly, unless abundant surface moisture is present, some shade and wind protection appears necessary for good survival. This survival, because of protection, was markedly higher in cutover codar brake plantings of Central Texas where the brush was left scattered than where the brush was burned. The same was true with blue grama, the tall hairy grama, and buffale grass. The information derived from small area observational plantings can be applied to field plantings on the project and camps.

PARTICIPATION - REVISION OF DRAINAGE BASIN REPORT

At the request of the President the Estional Resources Committee in December 1936 prepared a report entitled "Draimage Basin Problems and Programs" describing the conditions in the various draimage basins throughout the United States and making recommendations for future work.

Early this year the President requested that this report be revised and brought up to date. The U. S. Department of Agriculture was asked to assist in this revision, and Mr. Merrill was appointed to represent the Department of Agriculture for the drainage basins in Toxas.

Suggested revisions were prepared for all drainage basins lying wholly or partly within Region 4, and those suggestions were presented through the appointed representatives of the Department of Agriculture at the several Regional Basin Committee moetings involving drainage basins within Texas, Louisiana and Arkansas. It is felt that the Department of Agriculture was very successful in securing recognition of the agricultural problems of the various basins in the text of the reports, and that similar recognition has been attained in the recommendations for future work.

FLOOD CONTROL SECTION

The Flood Control Section was organized from personnel in the Regional Office in the latter part of July for the purpose of preparing preliminary examination reports on watersheds designated for study by Acts of the Congress.

By January 1, 1938, progress had been made on eight watersheds. The watersheds and percent of completion are as follows:

Trinity Watershed	100%
Sabino Watershed	90%
Neches Watershed	85%
Rod Watershod	20%
Arkansas Watershed	25%
Colorado Watershed	15%

Some preliminary work has been initiated on the Upper Rio Grande-Peces and the Ouachita Rivers in which watersheds this section does not have primary responsibility.

The development of memoranda of understanding with the Extension Service of Texas and Louisiana is a most important accomplishment. Under the terms of the agreement the Soil Conservation Service furnishes questionnaire forms developed by the Flood Control Section for use by the Extension Service in the assembly of information by watersheds and by counties.

The Soil Conservation Service has held three hearings on the Trinity River and cooperated with the Army in hearings on the Leon, the Arkansas, the Fourthe Bayou, and the Poteau Rivers.

Arrangements are complete for three hearings on the Sabine River and two hearings on the Neches to be held early in January.

Assistance was given to other sections and a large part of the First Drainage Basin Revision was completed by the Flood Control Section for the National Resources Committee Report.

OPERATIONS DATA ON REGION IV AND THE UNITED STATES SCS PROJECTS AND CCC CAMPS CUMULATIVE AS OF SEPTEMBER 30, 1937

	IVATE LAND PROJECTS	REGION IV	REGION IV PERCENT OF TOTAL U.S.	AGE UNITED STATES
		74	13.7	375 165 540
Total 3/ Gross Area Acres	CCC <u>8980</u> Total	16,670	12 . 6	61446 68165 132,611 82089
	CCC 1300000 Total	2,358,461	12.4	18,937,089
Ag:	reements Signed			
	Number of Ferms Number of Acres	8,287 1,325,191	15.5 13.7	53,210 9,685,547
Acres Under Treatment				
	Total Number Number Completed to Date	925,062 610,034	11.8 1/ _{1.2}	7,821,286 4,293,997
Total Crop Land-Acres				
	Before Contract After Contract Out of Cultivation	682,451 573,357 109,094	15.6 15.2 17.9	4,380,890 3,771,395 609,495
Cloan Tilled Crops - Acres				
	Before Contract After Contract	563,37l ₄ l ₄ 05,96l ₄	21.7 21.7	2,595,147 1,867,810
Erosion Resisting Crops - Acres				
	Before Contract After Contract	66,658 138,537	8.6 14.6	770;743 951 , 326

^{1/} No. of projects also includes those approved but upon which operations have not begun.

No. of camps includes only those reporting work off project areas.

2/ No. of farms in area estimated for CCC.

3/ Acres in Cross area for CCC camps estimated as 25000 for each camp working off project areas on private land, and an estimated area within a radius of 15

miles for camps working off Watershed Projects.

Semi-Erosion Resisting Crops - Acres	REGION IV	REGION IV PER	CENT- U.S. UNITED STATES
Before Contract After Contract	52 , 419 28 , 856	5.2 3.0	1,016,000 952,259
Approved Rotations			
Before Contract After Contract	29,767 506,673	3•9 14•8	758,430 3,427,912
Strip Cropping			4
Total Acros To Date	296,220	29.7	969,082
Terrace Construction			
Total Miles To Date Total Acres To Date	10,754.5 174,179	15.8 18.6	68,120.9 935,164
Contour Tillage - Acres			
Before Contract After Contract	49 , 597 50 7, 359	7•8 18•6	652,665 2,731,466
Protected By Winter Crops - Acres			
Before Contract Aftor Contract	15,6 7 5 59,317	6.7 11.3	233 , 21 ₁ 1 521 ₄ , 662
Total Permanent Hay Lands - Acres			
Before Contract After Contract	16,430 39,154	8.5 8.6	193 , 250 454 , 248
Total Pasture Lands - Acres			
Before Contract After Contract	302,633 392,395	16.7 19.2	1,811,367 2,048,385
Wooded Pastures - Acres			
Before Contract After Contract	9.944 4.361	8.1 5.6	123,460 77 , 227
Woodland - Acres			4-
Before Contract After Contract	257,847 256,214	23.5 18.6	1,095,381 1,379,086
Total Woodland - Acres			
Before Contract After Contract	267,791 260,575	22.0 17.9	1,218,898 1,456,370

	Total Woodland Under Managemen	REGION IV	REGION IV PERCENT-AGE OF TOTAL U.S.	UNITED STATES
	Acres	256,214	18.6	1,379,136
	Treated Demonstration Plots			
	Total Number of Acres	392	4.7	8 , 355
	Field Planting - To Date			
i	Acres Number of Trees Number Shrubbery & Vines	8,551 14,435,858 12,180	7.1 10.9 •9	119,633 131,849,716 12,823,376
	Gully Planting			
	Acres Number of Trees Number of Shrubbery & Vine		2.2 1.7 1.6	72,394 111,885,375 22,927,148
	Total Woodland Planting			
	Acres Number of Trees Number of Shrubber & Vines		5.2 5.4 1.3	194,834 244,878,765 36,556,563
	Stock Ponds			
	Acre Feet Storage Number of Dams	604 . 2 265	4•3 10•3	14,129.3 2,578
	Gully Control Structures			
	Temporary Permanent	81,868 1,903	4.9 4.1	1,653,916 45,869
	Outlet Structures			
* *	Number	23,555	7•5	314,958
	Total Rods Fencing To Date	972,543	22,2	4,386,551

PUBLIC LAND WESTERN WATERSHED PROJECTS

Agreements Signed

Total SCS and CCC

Number Acres 569 17,632,751

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

REGION 4

OFFICE OF THE REGIONAL CONSERVATOR Neil P. Anderson Building

Ft. Worth, Toxas Official Business

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE \$300.00

Library Agricultural Economics U. S. Department of Agriculture Washington, D. C.